DOCUMENT RESUME

ED 404 122 SE 054 751

AUTHOR Woolnough, Brian E.
TITLE Effective Science Teaching. Developing Science and Technology Education.
REPORT NO ISBN-0-335-19133-9
PUB DATE 94
NOTE 126p.
AVAILABLE FROM Open University Press, 1900 Frost Road, Suite 101, Bristol, PA 19007 (hardcover: ISBN-0-335-19134-7; paperback: ISBN-0-335-19133-9).
PUB TYPE Books (010) -- Viewpoints (Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE Document Not Available from EDRS.
DESCRIPTORS Educational Quality; *Educational Research; Elementary Secondary Education; Engineering Education; Excellence in Education; *Science Curriculum; *Science Education; *Student Projects; *Teacher Effectiveness; Teaching Methods

ABSTRACT

Effective science teaching is a topic of concern to many science educators. Throughout its six chapters, this book provides research findings of the effectiveness of science teachers in the classroom. The heart of effective teaching is the active involvement of students in scientific research projects. Chapter one, "Aims and Unresolved Tensions," provides an introduction to the upcoming chapters, a variety of aims of science teaching, and a brief discussion of curriculum issues in science education. Chapter two, "Insights from Schools," provides a summary of research aimed to determine those factors affecting school success in producing engineers and scientists. Chapter three, "So What Makes the Difference?" discusses what can be done at school to enhance the science learning of students. Chapter four, "Student Research Projects," considers examples and different ways of doing student research projects, both in-class and extra-curricular. Chapter five, "Stimulus Science Activities," shares some of the ways teachers and scientists have stirred the imaginations of their students by providing stimulus activities in science. Chapter six, "The Way Forward," considers the implications for encouraging effective science teaching under two interrelated and overlapping headings: types of curriculum and types of organization and teaching. (ZWH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****